

What is claimed is:

1. A magnetic recording medium comprising at least a soft magnetic underlayer and a recording layer, wherein

the angle formed by the direction of easy magnetization of the recording layer and the direction normal to the medium is not less than 5° and not more than 55°, and wherein, when the easy magnetization direction is from a back surface of the recording layer toward a front surface thereof and when the direction of recording tracks is from the upstream of the direction of transportation of the medium toward the downstream thereof, the direction of a projection of the easy magnetization direction on the medium plane substantially coincides with the recording track direction.

2. The magnetic recording medium according to claim 1, wherein the angle formed by the easy magnetization direction of the recording layer and the direction normal to the medium is not less than 25° and not more than 55°.

3. The magnetic recording medium according to claim 1, wherein the angle formed by the direction of a projection of the easy magnetization direction on the medium plane and the recording track direction is not more than 70°.

4. A magnetic recording apparatus comprising:

a magnetic recording medium;

a single pole type (SPT) head;

a slider on which the SPT head is mounted;

a suspension arm for securely fastening the slider; and

an actuator for supporting the suspension arm, wherein

the SPT head can be transported to an arbitrary position on the recording medium by the movement of the actuator where it can record information, and wherein

the magnetic recording medium comprises at least a soft magnetic underlayer and a recording layer, wherein

the angle formed by the direction of easy magnetization of the recording layer and the direction normal to the medium is not less than 5° and not more than 55°, and wherein, when the easy magnetization direction is from a back surface of the recording layer toward a front surface thereof and when the direction of recording tracks is from the upstream of the direction of transportation of the medium toward the downstream thereof, the direction of a projection of the easy magnetization direction on the medium plane substantially coincides with the recording track direction.

5. The magnetic recording apparatus according to claim 4, wherein the angle formed by the easy magnetization direction of the recording layer and the direction normal to the medium is not less than 25° and not more than 55°.

6. The magnetic recording apparatus according to claim 4, wherein the angle formed by the direction of a projection of the easy magnetization direction of the recording layer on the medium plane and the recording track direction is not more than 70°.

7. A magnetic recording apparatus comprising:

- a magnetic recording medium;
- a single pole type (SPT) head;
- a slider on which the SPT head is mounted;
- a suspension arm for securely fastening the slider; and
- an actuator for supporting the suspension arm, wherein
- the SPT head can be transported to an arbitrary position on the recording medium by the movement of the actuator where it can record information, wherein

the SPT head comprises at least:

a main pole, an auxiliary pole, and a shield disposed downstream of the direction of transportation of the medium with respect to the main pole and having a wider width than the main pole, and wherein

the magnetic recording medium comprises at least a soft magnetic underlayer and a recording layer, wherein

when the easy magnetization direction of the recording layer is from a back surface of the recording layer toward a front surface thereof and when the direction of recording tracks is from the upstream of the direction of transportation of the medium toward the downstream thereof, the direction of a projection of the easy magnetization direction on the medium plane substantially coincides with the recording track direction.

8. The magnetic recording apparatus according to claim 7, wherein the angle formed by the easy magnetization direction of the recording layer and the direction normal to the medium is not less than 15° and not more than 55°.

9. The magnetic recording apparatus according to claim 8, wherein the auxiliary pole is located downstream of the direction of transportation of the medium relative to the main pole.

10. The magnetic recording apparatus according to claim 8, wherein the auxiliary pole is located upstream of the direction of transportation of the medium relative to the main pole.